

Claims

[c1] A filament circuit resistance adjusting apparatus, for a filament circuit having a filament with a first resistance, said apparatus comprising a first resistor electrically coupled to the filament and having a second resistance, said first resistor adjusting the resistance of the filament circuit.

[c2] An apparatus as in claim 1 wherein said first resistor is in series with or parallel to the filament.

[c3] An apparatus as in claim 1 further comprising one or more resistors electrically coupled to said first resistor and further adjusting the resistance of the filament circuit.

[c4] An apparatus as in claim 3 wherein said one or more resistors are in series with, parallel to, or are both in series with and parallel to said first resistor and the filament.

[c5] An apparatus as in claim 1 further comprising:
a circuit board electrically coupled to the filament and the first resistor;
wherein said circuit board supports the first resistor.

[c6] An apparatus as in claim 5 wherein the circuit board comprises a heat sink layer.

[c7] An apparatus as in claim 5 further comprising a heat sink coupled to the circuit board and said first resistor.

[c8] An apparatus as in claim 5 further comprising a resistor socket electrically coupled to said circuit board and said first resistor, wherein said first resistor plugs into said socket.

[c9] An apparatus as in claim 5 further comprising a filament resistance adjusting apparatus socket electrically coupled to the filament and the circuit board, wherein said circuit board plugs into said socket.

[c10] A filament resistance adjusting apparatus, for a first filament circuit having a first filament with a first resistance, said apparatus comprising:
a circuit board electrically coupled to the first filament; and

a first resistor electrically coupled to said circuit board and the first filament and having a second resistance, said first resistor is in series with the first filament and adjusting the resistance of the first filament circuit.

[c11] An apparatus as in claim 10 further comprising:
a second filament having a third resistance; and
a second resistor having a fourth resistance, said second resistor is electrically coupled to said second filament and said circuit board;
said second resistor is in series with the second filament and adjusting the resistance of the second filament circuit.

[c12] An imaging tube assembly having a filament circuit comprising:
a cathode comprising a filament; and
a filament circuit resistance adjusting apparatus comprising;
a circuit board electrically coupled to the filament; and
a first resistor electrically coupled to said circuit board and the filament and having a second resistance, said resistor adjusting the resistance of the filament circuit.

[c13] An apparatus as in claim 12 further comprising:
an encasing having a recessed portion;
wherein said filament circuit resistance adjusting apparatus is positioned within said recessed portion.

[c14] An apparatus as in claim 12 further comprising a filament circuit resistance adjusting apparatus socket electrically coupled to the filament and the circuit board, wherein said circuit board plugs into said socket.

[c15] An apparatus as in claim 14 further comprising a cathode receptacle electrically coupled to said filament circuit resistance adjusting apparatus socket.

[c16] An apparatus as in claim 12 further comprising a resistor socket electrically coupled to said circuit board and said first resistor.

[c17] A method of adjusting resistance of a filament circuit having a filament with a first resistance, said method comprising electrically coupling a resistor having a second resistance to the filament.